

CPC**COOPERATIVE PATENT CLASSIFICATION****F23H****GRATES** (inlets for fluidisation air for fluidised bed combustion apparatus [F23C 10/20](#))
CLEANING OR RAKING GRATES**Guide heading:****F23H 1/00****Grates with solid bars**

F23H 1/02

- . having provision for air supply or air preheating, e.g. air-supply or blast fittings which form a part of the grate structure or serve as supports

F23H 1/04

- . having a variable burning surface

F23H 1/06

- . having bars at different levels ([double grates F23H 5/00](#))

F23H 1/08

- . Vertical grates

F23H 3/00**Grates with hollow bars**

F23H 3/02

- . internally cooled

F23H 3/04

- . externally cooled, e.g. with water, steam or air

F23H 5/00**Double grates****F23H 7/00****Inclined { or stepped } grates** ([inclined travelling grates F23H 11/12](#))

F23H 7/02

- . with fixed bars

F23H 7/04

- . . in parallel disposition

F23H 7/06

- . with movable bars disposed parallel to direction of fuel feeding

F23H 7/08

- . . reciprocating along their axes

F23H 7/10

- . . rocking about their axes

F23H 7/12

- . with movable bars disposed transversely to direction of fuel feeding

F23H 7/14

- . . reciprocating along their axis

F23H 7/16

- . . rocking about their axes

F23H 7/18

- . . reciprocating in an upward direction

F23H 9/00**Revolving-grates****Rocking-grates** ([F23H 7/00](#) takes precedence)

F23H 9/02

- . Revolving cylindrical grates

- F23H 9/04 . Grates rocked as a whole
- F23H 9/06 . the bars being rocked about axes transverse to their lengths
- F23H 9/08 . the bars being rocked about their longitudinal axes
- F23H 9/10 . . and modified to move fuel along the grate
- F23H 9/12 . the bars being vertically movable in a plane
- F23H 11/00 Travelling-grates**
- F23H 11/02 . with the bars disposed on transverse bearers
- F23H 11/04 . with the bars pivoted at one side
- F23H 11/06 . with the bars movable relatively to one another
- F23H 11/08 . with several individually-movable grate surfaces
- F23H 11/10 . with special provision for supply of air from below and for regulating air supply
- F23H 11/12 . inclined travelling grates
Stepped travelling grates
- F23H 11/14 . serving as auxiliary grates
- F23H 11/16 . for multi-layer stoking
- F23H 11/18 . Details
- F23H 11/20 . . Driving-means
- F23H 11/22 . . Moving fuel along grate
Cleaning of grate
- F23H 11/24 . . Removal of ashes
Removal of clinker
- F23H 11/26 . . . by dumping
- F23H 11/28 . . Replaceable burning-surface
- F23H 13/00 Grates not covered by any preceding group**
- F23H 13/02 . Basket grates, e.g. with shaking arrangement
- F23H 13/04 . Telescoping-grates
- F23H 13/06 . Dumping-grates
- F23H 13/08 . Grates specially adapted for gas generators and also applicable to furnaces

F23H 15/00 **Cleaning arrangements for grates** (not forming part of the grate [F23J 1/00](#))
Moving fuel along grate (rocking-grates modified for moving fuel [F23H 9/10](#); for travelling-grates [F23H 11/22](#))

F23H 17/00 **Details of grates**

- [F23H 17/02](#) . End fittings on bars
- [F23H 17/04](#) . . of travelling-grates
- [F23H 17/06](#) . Provision for vertical adjustment of grate
- [F23H 17/08](#) . Bearers
 Frames
 Spacers
 Supports
- [F23H 17/10](#) . . Dead plates
 Imperforate fuel supports
- [F23H 17/12](#) . Fire-bars

Guide heading:

F23H 2700/00 **Grates characterised by special features or applications**

- [F23H 2700/001](#) . Grates specially adapted for steam boilers
- [F23H 2700/002](#) . Inclined grates with longitudinally movable gratebars
- [F23H 2700/003](#) . Stepped grates with rotatable or slidable gratebars
- [F23H 2700/004](#) . Rotary grates with horizontal axis
- [F23H 2700/005](#) . Rotary grates with vertical axis
- [F23H 2700/006](#) . Grates of basket-type
- [F23H 2700/007](#) . Basket grates with shaking arrangement
- [F23H 2700/008](#) . Mobile grates
- [F23H 2700/009](#) . Grates specially adapted for incinerators

Guide heading:

F23H 2900/00 **Special features of combustion grates**

- [F23H 2900/03021](#) . Liquid cooled grates

- F23H 2900/09041 . Vibrating grates for solid fuels ([specially adapted for incinerators F23G 2203/107](#))
- F23H 2900/17001 . Specific materials therefor
- F23H 2900/17002 . Detachable or removable worn-out parts